

CLAIMS

What is claimed is:

1. An optical device for distributing the radiant emission of a light emitter comprising:
a lower transfer section; and
an upper ejector section situated upon the lower transfer section, said lower transfer section operable for placement upon the light emitter and operable to transfer the radiant emission to said upper ejector section, said upper ejector section shaped such that the emission is redistributed externally into a substantial solid angle wherein said transfer section is a solid of revolution having a profile in the shape of an equiangular spiral displaced laterally from an axis of said solid of revolution so as to place a center of said equiangular spiral on an opposite side of said axis therefrom.
2. The system of claim 1, wherein said light emitter comprises multiple sources of light.
3. The system of claim 2, wherein said multiple light sources are light emitting diodes.
4. The system of claim 3, wherein said multiple light-emitting diodes have differing wavelengths.
5. The system of claim 4, wherein said multiple wavelengths chromatically combine in normal human vision to produce a white hue.

6. The system of claim 4, wherein the luminosities of said multiple wavelengths are capable of individual control to deliver a gamut of colors in normal human vision.

7. The system of claim 4, wherein said multiple wavelengths are compatible with night-vision.

8. An optical device for distributing the radiant emission of a light emitter comprising:
a lower transfer section; and
an upper ejector section situated upon the lower transfer section, said lower transfer section operable for placement upon the light emitter and operable to transfer the radiant emission to said upper ejector section, said upper ejector section shaped such that the emission is redistributed externally into a substantial solid angle and wherein said ejector section comprises a lower and a connecting upper portion.

9. The device of Claim 8 wherein said ejector section is a biconic surface comprising a lower vertically expanding cone extending out of said transfer section and an upper pointed cone.

10. The device of Claim 8 wherein said lower portion of said ejector section comprises a cylindrical section surfaced with convex and concave toroidal lenslets.

11. The device of Claim 8 wherein said lower portion of said ejector section has a protruding flange-like profile of thickness comparable to the diameter of said transfer section and diameter comparable to the height of said transfer section.

12. The device of Claim 11 wherein said flange-like profile of said lower portion of said ejector section comprises an upper equiangular spiral with its center at the uppermost axial point of said transfer section.

13. The device of Claim 8 wherein said upper portion of said ejector section comprises a solid of revolution with a profile of an equiangular spiral with center at the upper edge of said transfer section.

14. The device of Claim 8 wherein said lower portion of said ejector section a portion of a sphere.

15. The device of Claim 8 wherein said upper portion of said ejector section is an inverted cone.

16. The device of Claim 15 wherein said sphere is surfaced with toroidal lenslets.

17. An optical device for distributing radiant emissions of a light emitter, the optical device comprising:

a transfer section; and

an ejector section situated upon the transfer section, said transfer section operable for placement adjacent with a light emitter and operable to transfer radiant emission from said light emitter to said ejector section, said ejector section shaped such that the emission is redistributed externally into a substantial solid angle.

18. The optical device of claim 17, wherein said ejector section has an upper surface with a profile of an

equiangular spiral with a center at an upper edge of said transfer section.

19. The optical device of claim 17, wherein said ejector section has a surface comprised of a radial array of V-grooves.

20. The device of Claim 19 wherein said V-grooves subtend right angles.

21. The optical device of claim 17, wherein a surface of said transfer section is comprised of an array of V-grooves.

22. The device of Claim 21 wherein said V-grooves subtend right angles.

23. The device of Claim 21 wherein said transfer section is a cylinder.

24. The optical device of claim 17, wherein said transfer section is polygonal.

25. The optical device of claim 17, wherein said transfer section is faceted.